

## Six New Taxa of the Subtribe Carabina (Coleoptera, Carabidae) from Sichuan, Southwest China

**Yûki IMURA**

Shinohara-chô 1249–8, Kôhoku-ku, Yokohama, 222–0026 Japan,

**Hong-Zhang ZHOU**

Institute of Zoology, Chinese Academy of Sciences, 19 Zhongguancun Lu,  
Haidian, Beijing, 100080 China

**and**

**Zhi-Hui SU**

JT Biohistory Research Hall, 1–1 Murasaki-cho, Takatsuki, Osaka, 569–1125 Japan

**Abstract** Two new species and four new subspecies of the subtribe Carabina are described from Sichuan Province of Southwest China: *Archaeocarabus yunnanus enneadraconis* subsp. nov., *Neoplesius kangdingi geshizhanus* subsp. nov., *N. xiaodongi* sp. nov., *N. feicuiennis* sp. nov., *Megodontoides promachus wujiapeng* subsp. nov. and *Aristocarabus viridifossulatus sandaguensis* subsp. nov.

In the summer of 2001, a scientific investigation was made by the members of the Chinese Academy of Sciences, Beijing, and a series of carabid specimens were collected from the mountain regions of Sichuan Province in Southwest China. This is the first part of our study on these materials, and we are going to describe six new taxa of the subtribe Carabina on the basis of the morphological analysis. For the higher classification of the subtribe Carabina, we follow IMURA's system (2002 a) constructed mainly upon the molecular phylogeny. The abbreviations employed herein are the same as those explained in previous papers of the first author.

Before entering into the description, we wish to express our gratitude to Mr. Xiao-Dong YU for his collaboration in field works. Our deep appreciation is also due to Dr. Shun-Ichi UENO of the National Science Museum (Nat. Hist.), Tokyo, for critically reading the manuscript of this paper.

This study is supported in part by State Key Basic Research and Development Plan (G2000046800), National Science Fund for Fostering Talents in Basic Research (NSFC-J0030092) and CAS Innovation Program (KSCX3-IOZ-01).

**1. *Archaeocarabus yunnanus enneadraconis* subsp. nov.**

(Fig. 1)

*Description.* Length: 22.3 mm (including mandibles). Most closely allied to subsp. *yanyuanicus* CAVAZZUTI described from Yanyuan of southwestern Sichuan, but differs from that race in the following points: 1) smaller in size; 2) vertex hardly punctate; 3) pronotum a little more transverse (PW/PL 1.35, while it is 1.25–1.26 in *yanyuanicus*), with the hind angles a little more sharply and triangularly protruded posteriad; 4) primary foveoles of elytra shallower; 5) striae between elytral intervals more vaguely impressed and hardly scattered with punctures.

Holotype: ♀, mixed forest, 2,445 m in altitude, in southern Jiulong Xian [九龙县] of western Sichuan, Southwest China, 9~12-VII-2001, Xiao-Dong YU & Hong-Zhang ZHOU leg., in coll. Institute of Zoology, Chinese Academy of Sciences, Beijing.

*Derivatio nominis.* The name of this new subspecies comes from its locality, Jiulong, which means “nine dragons” in Chinese.

**2. *Neoplesius kangdingi geshizhanus* subsp. nov.**

(Figs. 2 & 9)

*Description.* Length: 22.2–26.3 mm (including mandibles). Differs from the nominotypical *kangdingi* (KORELL, KLEINFELD et GÖRGNER) from Kangding in the following points: 1) size a little smaller; 2) coloration of dorsal surface brighter, that of antennae, tibiae and tarsi more strongly reddish; 3) vertex more remarkably punctate; 4) pronotum quadrate and less strongly convergent towards the base; 5) secondary intervals of elytra apparently more reduced; 6) aedeagus a little slenderer, with the apical lobe longer and less strongly bent ventrad in lateral view.

*Type series.* Holotype: ♂, mixed forest, 2,610 m in altitude, Geshizha [革什扎] in central Danba Xian [丹巴县] of west-central Sichuan, Southwest China, 20~22-VII-2001, Xiao-Dong YU & Hong-Zhang ZHOU leg. Paratype: ♀, same data as for the holotype. All preserved in coll. Institute of Zoology, Chinese Academy of Sciences, Beijing.

*Notes.* A lower taxon *kangdingi* (KORELL, KLEINFELD & GÖRGNER, 1992, p. 372) was originally described as a subspecies of *Carabus (Eucarabus) lixianensis* DEUVE (1990, p. 160) (= *Neoplesius lixianensis* in the present sense). However, these two taxa should be regarded as two separate species in view of radically different configuration of the aedeagal apex. The present new race should also be compared with *N. morettoii* DEUVE described from Lianghekou between Barkam and Xiaojin, but the former is readily discriminated from the latter by differently shaped pronotum and aedeagus.

### 3. *Neoplesius xiaodongi* sp. nov.

(Figs. 3 & 7)

*Description.* Length: 21.3–24.7 mm (including mandibles). Medium-sized species for the genus with external and male genitalic features similar to those of *N. sinotibetica* MANDL, but definitely differs from MANDL's species at least in configuration of mentum and aedeagus. Upper surface dark brownish to dark reddish coppery, bearing a greenish tinge on head, elytral margins and primary foveoles of elytra; venter and appendages blackish brown.

Head as in *N. sinotibetica*, but macrocephaly is not remarkable; frontal furrows widely and rather deeply concave; frons strongly convex above and sparsely scattered with minute punctures; vertex and posterior parts of frontal furrows remarkably rugoso-punctate; retinaculum of mandible bidentate, with the anterior tooth shorter than the posterior on both sides; terminal segments of palpi not strongly dilated in male; penultimate segment of labial palpus bisetose; median tooth of mentum apparently longer than lateral lobes, with the apex sharply pointed in ventral view and gently bent ventrad in lateral view (Fig. 7 a–b), while it is much shorter than lateral lobes and not sharply pointed at the tip in *N. sinotibetica*; submentum asetose; antennae reaching the basal sixth (female) to quarter (male) of elytra.

Pronotum also as in *N. sinotibetica*, but front angles are more roundly arcuate, lateral sides are more remarkably convergent before hind angles which are a little more sharply protruded postero-laterally; disc more strongly convex above, with the surface not punctured and basal foveae a little more deeply impressed; two pairs of lateral setae inserted on both sides, one near the middle of pronotum and the other before hind angles; PW/HW 1.31, PW/PL 1.35, PW/PAW 1.62, PW/PBW 1.26, PBW/PAW 1.28 in the holotype specimen.

Elytra longer and slenderer than in *N. sinotibetica*; EW/PW 1.50, EL/EW 1.83 in the holotype specimen; sculpture triploid heterodyname — primaries the widest, rather regularly segmented by small primary foveoles to form rows of weakly raised costae; secondaries much narrower than the primaries, forming longitudinally contiguous costae or rows of granules; tertiaries the weakest, indicated by irregularly set rows of granules of various sizes; elevated parts of each interval irregularly connected to one another to form reticular pattern at least partly.

Episterna and sides of sternites almost smooth, sternal sulci unrecognizable; metacoxa trisetose; basal four segments of male foretarsus dilated and haired on the ventral surface.

Male genitalia as shown in Fig. 7 c–e; aedeagus short and robust, similar in shape to that of *N. sinotibetica*, but the median portion is much wider and the apical portion is a little less strongly bent ventrad in lateral view, and the apex is much wider and less sharply pointed at the tip in dorsal view. It was impossible to take a findings of endophallus, since a single male specimen available for study had been immersed into ethanol and lost a flexibility of the membraneous part.



*Type series.* Holotype: ♂, shrubs of *Salix* spp. near the river, 3,825 m in altitude, in northern Jiulong Xian of western Sichuan, Southwest China, 11~14-VII-2001, Xiao-Dong YU & Hong-Zhang ZHOU leg. Paratypes: 1 ♀, same data as for the holotype; 1 ♀, forest of *Abies* sp., 3,865 m in altitude, in northern Jiulong Xian, same collecting date and collectors as for the holotype. All preserved in coll. Institute of Zoology, Chinese Academy of Sciences, Beijing.

*Notes.* The new species should also be compared with *N. chomae* IMURA of southeastern Jiulong Xian, but the former is readily discriminated from the latter by much shorter median tooth of the mentum, much smaller and less remarkably rugulose pronotum, differently shaped elytra and aedeagus, etc.

*Derivatio nominis.* The present new species is named after Mr. Xiao-Dong YU [于晓东] who assisted the second author in the field.

#### 4. *Neoplesius feicuiipennis* sp. nov.

(Figs. 4 & 8)

*Description.* Length: 20.0 mm (including mandibles). Upper surface jade green, bearing a reddish coppery tinge on head, pronotum and a part of elytra; venter and appendages blackish brown.

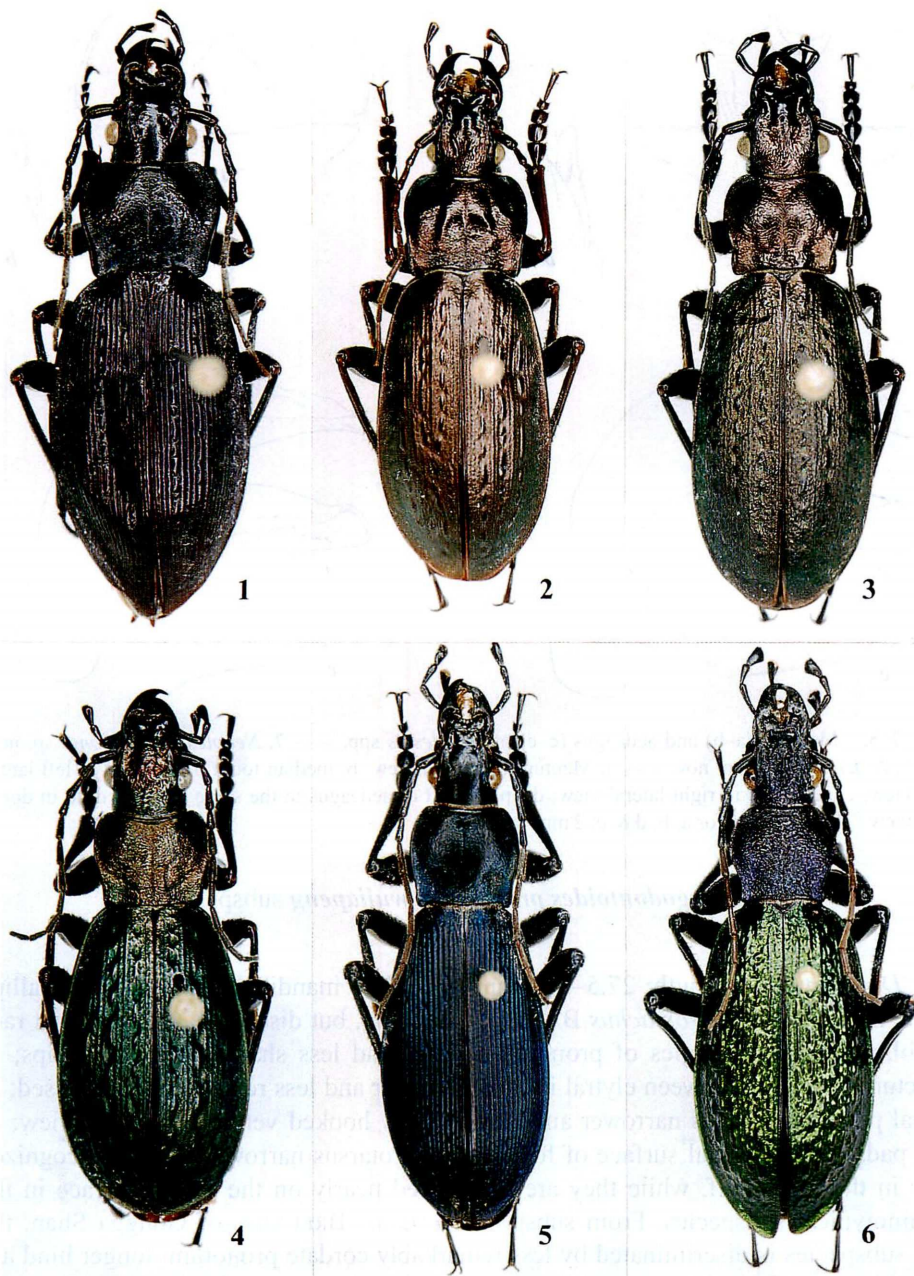
Closely allied to *N. xiaodongi*, but readily discriminated from that species in the following respects: 1) median tooth of mentum apparently shorter than lateral lobes, with the apex triangularly shaped but not sharply pointed at tip in ventral view and not bent ventrad in lateral view (Fig. 8 a-b); 2) pronotum with the lateral sides less strongly sinuate and the hind angles a little more obtusely rounded at tips; 3) pronotal disc less strongly convex above, with the surface more remarkably rugulose; 4) elytra much shorter and robuster and widest apparently behind the middle; 5) primary foveoles of elytra larger and deeper; 6) elevated parts of secondary and tertiary intervals less frequently contiguous to one another; 7) aedeagus a little shorter and slenderer, less strongly bent ventrad near the apex, with the apical lobe remarkably compressed right laterad and more narrowly elongate in dorsal view.

From *N. sinotibetica*, the new species is distinguished by less hypertrophic head, more strongly protruded median tooth of mentum, robuster median portion of aedeagus and less strongly bent aedeagal apex.

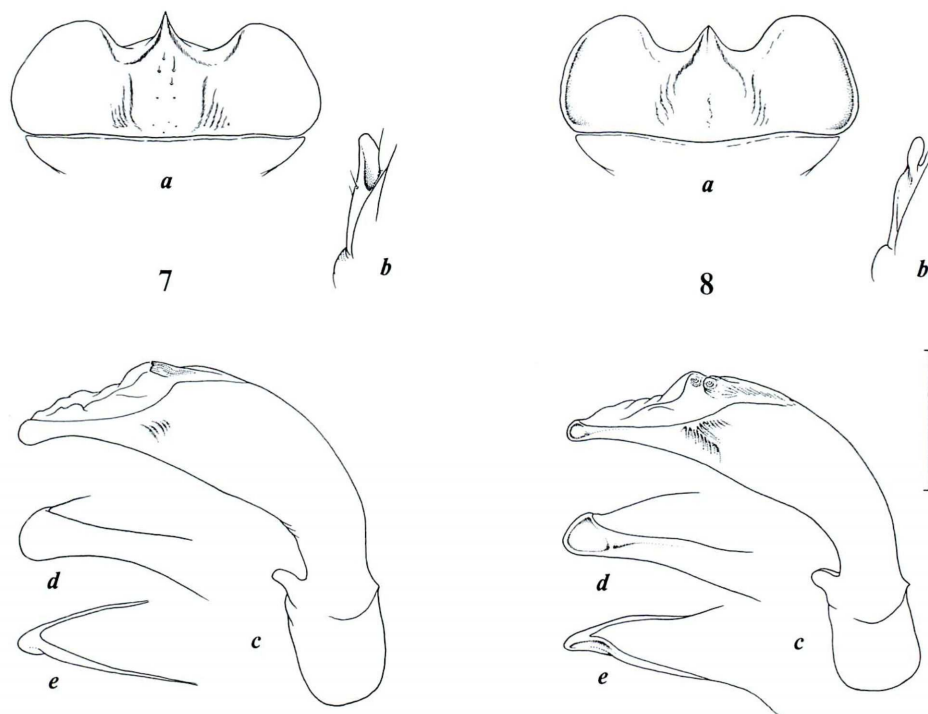
Readily discriminated from *N. chomae* by smaller pronotum, differently shaped elytra and aedeagus, etc.

Holotype: ♂, shrubs of *Rhododendron* spp., 4,135 m in altitude, in southwestern Jiulong Xian of western Sichuan, Southwest China, 10~13-VII-2001, Xiao-Dong YU & Hong-Zhang ZHOU leg., in coll. Institute of Zoology, Chinese Academy of Sciences, Beijing.

*Derivatio nominis.* This new species is named after its elytral coloration, “Feicui [翡翠]” or “Feicuilü [翡翠绿]”, which means jade green in Chinese.



Figs. 1–6. Holotypes of newly described taxa from Sichuan, Southwest China. — 1, *Archaeocarabus yunnanus enneadraconis* subsp. nov.; 2, *Neoplesius kangdingi geshizhanus* subsp. nov.; 3, *N. xiaodongi* sp. nov.; 4, *N. feicuiennis* sp. nov.; 5, *Megodontoides promachus wujiapeng* subsp. nov.; 6, *Aristocarabus viridifossulatus sandaguensis* subsp. nov.



Figs. 7–8. Mentum (a–b) and aedeagus (c–e) of *Neoplesius* spp. — 7, *Neoplesius xiaodongi* sp. nov.; 8, *N. feicuiipennis* sp. nov. — a, Mentum in ventral view; b, median tooth of mentum in left lateral view; c, aedeagus in right lateral view; d, apical part of aedeagus in the same view; e, ditto in dorsal view. Scale: 1 mm for a, b, d & e; 2 mm for c.

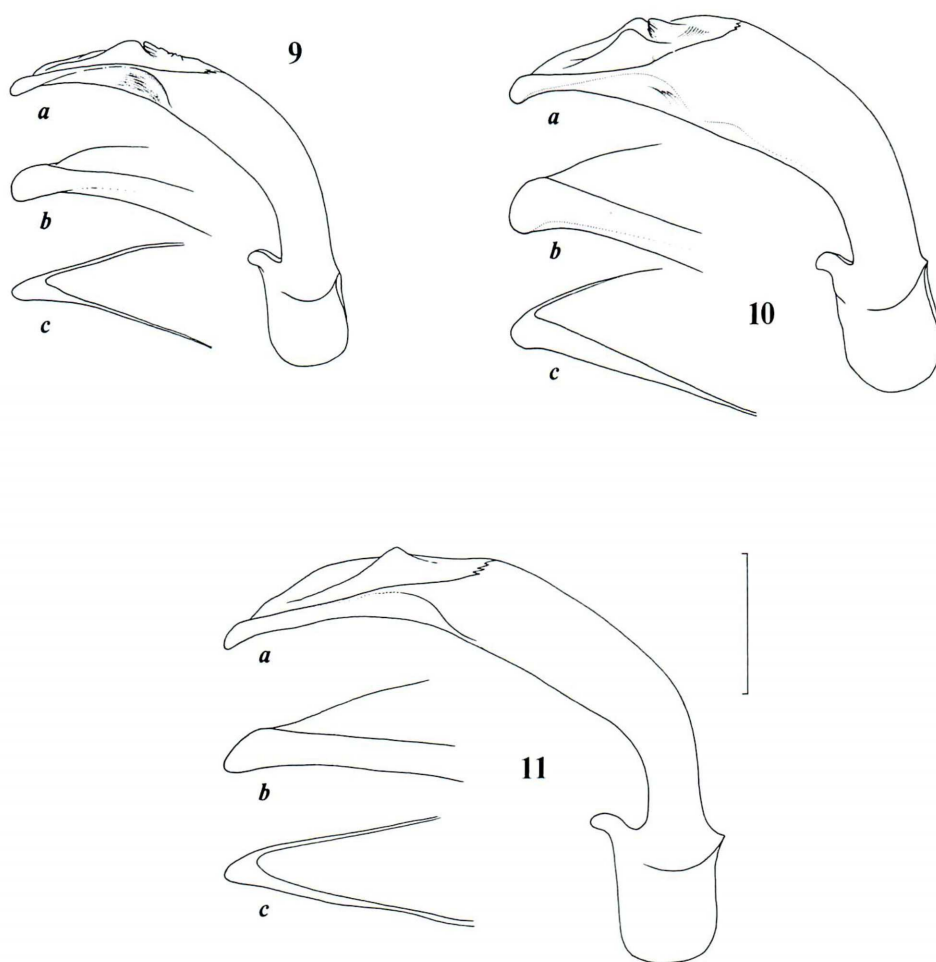
##### 5. *Megodontoides promachus wujiapeng* subsp. nov.

(Figs. 5 & 10)

*Description.* Length: 27.5–32.4 mm (including mandibles). Most closely allied to the nominotypical *promachus* BATES of Kangding, but discriminated from that race as follows: 1) hind angles of pronotum shorter and less sharply pointed at tips; 2) punctures on striae between elytral intervals smaller and less remarkably impressed; 3) apical part of aedeagus narrower and less strongly hooked ventrad in lateral view; 4) hair pads on the ventral surface of fourth male protarsus narrower in area, recognized only in the inner half, while they are recognized nearly on the whole surface in the nominotypical subspecies. From subsp. *konkerianus* BREUNING of Gongga Shan, the new subspecies is discriminated by less remarkably cordate pronotum, longer hind angles of pronotum, wider elevated parts of elytral intervals, robuster aedeagus with wider apical lobe and narrower ventral hair pads of fourth male protarsus.

*Type series.* Holotype: ♂, mixed forest, 2,320 m in altitude, Wujiapeng [五家棚] in southwestern Danba Xian of west-central Sichuan, Southwest China, 19~21-VII–





Figs. 9–11. Aedeagus of newly described taxa from Sichuan, Southwest China. — 9, *Neoplesius kangdingi geshizhanus* subsp. nov.; 10, *Megodontoides promachus wujiapeng* subsp. nov.; 11, *Aristocarabus viridifossulatus sandaguensis* subsp. nov. — a, Aedeagus in right lateral view; b, apical part of aedeagus in the same view; c, ditto in dorsal view. Scale: 1 mm for b & c; 2 mm for a.

2001, Xiao-Dong YU & Hong-Zhang ZHOU leg. Paratypes: 1 ♀, same data as for the holotype; 1 ♂, mixed forest, 2,620 m in altitude, Wujiapeng, same date and collectors. All preserved in coll. Institute of Zoology, Chinese Academy of Sciences, Beijing.

**6. *Aristocarabus viridifossulatus sandaguensis* subsp. nov.**

(Figs. 6 & 11)

*Description.* Length: 34.0 mm (including mandibles). Allied to such subspecies

as *romanowi* SEMENOW, *rizeanus* IMURA et SU and *lamaorum* DEUVE of northern Sichuan, but differs from them as follows: 1) obviously larger in size; 2) elytral colour a little brighter; 3) pronotum larger, with the hind angles less sharply pointed at tips; 4) two pairs of elytral setae inserted on both sides, one near the widest part and the other before hind angles; 5) elytral shoulders a little more prominent; 6) elevated parts of elytral intervals much more reduced; 7) apical lobe of aedeagus much wider in both lateral and dorsal views. From subsp. *seticollis* DEUVE et MOURZINE<sup>1)</sup> of Lixian and Wenchuan, the new race is distinguished by larger size, wider pronotum, different number of pronotal marginal setae and longer elytra with more prominent shoulders.

Holotype: ♂, mixed forest, 2,875 m in altitude, Sandagu [上打古] in northwestern Heishui Xian [黑水县] of northern Sichuan, Southwest China, 24~26-VII-2001, Xiao-Dong YU & Hong-Zhang ZHOU leg., in coll. Institute of Zoology, Chinese Academy of Sciences, Beijing.

*Notes.* *Aristocarabus viridifossulatus* FAIRMAIRE is divided into two major subspecies groups, that is, the group of the nominotypical *viridifossulatus* and that of subsp. *romanowi*. The present new race apparently belongs to the latter in view of the external morphology. From the genitalic morphology, however, it seems to show a closer affinity to the former group.

## 要 約

井村有希・周 紅章・蘇 智慧：中国四川省におけるオサムシ亜族の6新分類単位。——2001年の夏に行われた中国科学院の学術調査で得られたオサムシ類を検した結果、四川省の九龍県、丹巴県および黒水県から2新種と4新亜種を見いだすことができたので、それぞれに新名を与え、記載した。

## References

- BATES, H. W., 1891. Coleoptera collected by Mr. PRATT on the upper Yang-tsze, and on the borders of Tibet. Second notice. Journey of 1890. *The Entomologist, Suppl.*, **1891**: 69–85.
- BREUNING, S., 1969. Description d'une nouvelle race du genre *Carabus* d'Espagne et d'une nouvelle espece de Chine (Col. Carabidae). *Bull. Soc. ent. Mulhouse*, **1969**: 60.
- CAZAZZUTI, P., 1996. Quarto contributo alla conoscenza dei *Carabus* L. della Cina. Nuove specie e sottospecie appartenenti ai sottogeneri *Archaeocarabus* SEMENOV, *Rhigocarabus* REITTER e *Pseudocoptolabrus* REITTER, del Sichuan meridionale (Coleoptera, Carabidae). *Lambillionea, Tervuren*, (96): 226–234.
- DEUVE, Th., 1990. Description d'un nouveau *Carabus* du Sichuan (Col., Carabidae). *Bull. Soc. ent. Fr.*, **95**: 160.
- 1997. Nouveaux *Carabus* et *Cychrus* du Sichuan et du Yunnan, Chine (Coleoptera, Carabidae). *Coléoptères, Guyancourt*, **3**: 1–11.

1) This taxon was described in the paper written under a joint authorship of DEUVE and TIAN, not that of DEUVE and MOURZINE. In the same paper were described six new taxa; four by DEUVE and TIAN but the remaining two including *seticollis* by DEUVE and MOURZINE.



- DEUVE, Th., & M. TIAN, 2000. Nouveaux *Carabus* L. et *Cychrus* F. de Chine (Coleoptera, Carabidae). *Ibid.*, **6**: 47–54.
- FAIRMAIRE, L., 1887. Coléoptères de l'intérieur de la Chine. *Annls. Soc. ent. Belg.*, **31**: 87–136.
- IMURA, Y., 2002 a. Classification of the subtribe Carabina (Coleoptera, Carabidae) based on molecular phylogeny. *Elytra, Tokyo*, **30**: 1–28.
- 2002 b. Contribution to the knowledge of the carabid fauna (Coleoptera, Carabidae) of Kangding Xian and Jiulong Xian in western Sichuan, China. *Ibid.*, **30**: 29–37.
- & Z.-H. SU, 1998. Two new subspecies of the genus *Carabus* (s. lat.) (Coleoptera, Carabidae) from northern Sichuan, China. *Ibid.*, **26**: 249–255.
- KORELL, A., F. KLEINFELD & E. GÖRGNER, 1992. Beschreibung des *Carabus* (*Eucarabus*) *lixianensis kangdingi* n. subsp. (Coleoptera: Carabidae). *Ent. Z., Essen*, **102**: 371–375.
- MANDL, K., 1975. Neue *Carabus*-Arten aus China (Col. Carabidae). *Ent. Arb. Mus. Frey, Tutzing*, **26**: 278–291.
- SEMENOW, A., 1896. Symbolae ad cognitionem generis *Carabus* (L.) A. MOR. I. Formarum novarum decas I et II. *Horae Soc. ent. ross.*, **30**: 193–229.

---

*Elytra, Tokyo*, **32** (1): 13–14, May 31, 2004

## Records of Two Pselaphine Species (Coleoptera, Staphylinidae, Pselaphinae) from Vietnam and Myanmar

Shûhei NOMURA

Department of Zoology, National Science Museum, 3–23–1  
Hyakunin-chô, Shinjuku-ku, Tokyo, 169–0073 Japan  
E-mail: nomura@kahaku.go.jp

Through the courtesy of Mr. Yoshiyasu KUSAKABE, I had an opportunity to examine more than 300 pselaphine specimens collected from Myanmar mainly by light traps. I was able to find the following two species and will record them from Myanmar for the first time. These two species are already recorded by JEANNEL (1952) from South Vietnam (Saïgon). Recent records of *Raphitreus dentimanus* from Vietnam are also added with a note on its type locality after examination of the syntypes preserved in MNHN, Paris.

Before going further, I wish to express my hearty thanks to Mr. Y. KUSAKABE for his kind offer of the invaluable materials. My cordial thanks are also due to Dr. Olivier MONTREUIL of the Muséum National d'Histoire Naturelle, Paris (MNHN), for giving me an opportunity to examine the type specimens in RAFFRAY's Collection. My field work in Vietnam is supported by the Grants-in-aid No. 13575015 for Field Research of the Monbukagakusho International Research Program, Japan.